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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,901	12/10/2004	Frederick L Jordan	HO-P03088US2	6893
23363 7590 06/16/2008 CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068				
EXAMINER				
MCAVOY, ELLEN M				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
06/16/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/517,901

**Applicant(s)**

JORDAN, FREDERICK L

**Examiner**

Ellen M. McAvoy

**Art Unit**

1797

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 8, 10, 12, 14, 16-23 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 10, 12, 14, 16-23 and 31-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/4/05; 5/12/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

***Claim Objections***

Claims 31 and 33 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 31 recites "The diesel fuel additive of claim 1.." and claim 33 recites "The additized diesel fuel of claim 20..". However, claim 1 is drawn towards a fuel additive (not a diesel fuel additive) and claim 20 is drawn towards an additized fuel (not an additized diesel fuel). Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8, 10, 12, 14, 16-23 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jordan (5,826,369) in combination with Reid (4,981,495) or Reid (4,941,968).

Jordan discloses a fuel additive which acts to enhance the combustion characteristics of carbonaceous fuels which comprises beta-carotene, chlorophyll, jojoba oil and ethoxylated castor oil. Jordan teaches that the additive may be diluted with a suitable solvent including gasoline, diesel fuels, xylene, toluene, cyclic hydrocarbons and other liquids including most any organic solvent. Jordan teaches that cetane boosters such as alkyl nitrates which include 2-ethylhexyl nitrate and mixed octyl nitrate may be added to the fuel composition. See column 1, line 66 to

column 3, line 21. Applicant's invention differs by adding 2,2,4-trimethyl-6-ethoxy-1,2-dihydroquinoline which acts as a stabilizing compound to the beta-carotene component in the fuel additive. However, as evidenced by the Reid references, the oxidative stability of hydrocarbon fuels including gasoline and diesel fuels is improved by adding an alkyl 1,2-dihydroquinoline compound. Reid discloses that suitable quinoline compounds include 6-ethoxy-2,2,4-trimethyl-1,2-dihydroquinoline. See formula IV in column 3 of Reid ('369) and in column 4 of Reid ('968). The Reid references teach that the alkyl 1,2-dihydroquinoline compounds may be added to gasoline and other fuels in an amount of 1 to 10,000 parts based upon one million parts gasoline, which converts to 0.000001 to 0.01 %. See column 4, lines 17-25 of ('495). Having the prior art references before the inventor at the time the invention was made it would have been obvious to have added a known fuel stabilizing compound to the fuel composition of Jordan if its imparted properties were so desired.

***Claim Rejections - 35 USC § 103***

Claims 2, 12, 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gambini et al (5,593,463).

Gambini et al ["Gambini"] disclose fuel compositions for internal combustion engines which comprise a gasoline fuel and minor amounts of hydrocarbon oligomers which contain some olefinic unsaturation. See columns 1-2. The fuel compositions also contain other additives including phenolic antioxidants and oxygenates including alcohols and ethers. See column 3, lines 36-43 and column 4, lines 10-20. The examiner is of the position that Gambini clearly meets the limitations of independent claims 2 and 21 when the first component is a long chain

olefinic compound. The “stabilizing compound that inhibits oxidation” is clearly encompassed by the phenolic antioxidant of the prior art.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ellen M McAvoy/  
Ellen M McAvoy  
Primary Examiner  
Art Unit 1797

EMcAvoy  
June 9, 2008